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10/578,109	05/01/2006	Ziyan Wang	GP-303611-RD-KAM	1734
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MacMillan, Sobanski & Todd, LLC			EXAMINER	
One Maritime Plaza			KIM, CHONG R	
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5th Floor			ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/578,109	Applicant(s) WANG ET AL.	
	Examiner CHARLES KIM	Art Unit 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 August 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2 and 6-29 is/are rejected.
- 7) ☒ Claim(s) 3-5 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>5/1/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Status of Claims

1. Claims 1-29, which were filed as a preliminary amendment on May 1, 2009 and subsequently re-filed on August 25, 2009, are considered to be the pending claims. Original claims 1-17 have been canceled.

Duplicate Claims

2. Applicant is advised that should claim 7 be found allowable, claim 6 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 2, 8, 9, 21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Referring to claim 2, the phrase "the second plurality of points (Pj)" lacks antecedent basis. Appropriate correction is required.

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Referring to claim 8, the phrase “and a Fig. 8” renders the claim indefinite because it is unclear what is being claimed. Appropriate correction is required.

Referring to claim 9, the phrase “the two lengths (P1P0 and P0P4)” lacks antecedent basis. Appropriate correction is required.

Referring to claim 21, the phrase “said resistive switch” lacks antecedent basis. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-2, 6-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Schauer, U.S. Patent Application Publication No. 2002/0145592 ("Schauer") and Nishikawa et al., E.P. Patent No. 1 014 295 A2 ("Nishikawa").

Referring to claim 1, Schauer discloses a hand-writing device for inputting characters, comprising:

an input surface [*par. 13. Note the touchpad.*]; and

a plurality of switch elements provided at positions on the input surface [*fig. 1*], at least certain of said switch elements being triggered by a hand-writing stroke to produce an output signal when a specific character is input by hand-writing, and wherein the combination of the output signals of said triggered switch elements correspond to the inputted character [*par. 14.*

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Note that the switch elements (i.e., keys) are triggered by a hand-writing stroke. For example, Schauer explains that the letter "c" can be inputted by applying a hand-writing stroke to the touch pad to trigger the keys 5, 4, 7, 8.].

Schauer does not explicitly disclose a guidance device provided on the input surface and extending along a predetermined track for guiding hand-writing strokes to follow said predetermined track. However, this feature was well known in the art. For example, Nishikawa discloses a guidance device provided on an input surface (touch pad) and extending along a predetermined track for guiding hand-writing strokes to follow said predetermined track [*figs. 15-20. Note the variety of different configurations for the guidance device that guides hand-writing strokes to follow a predetermined track.*].

Schauer and Nishikawa are combinable because they are both concerned with touch pad input devices. One of ordinary skill and creativity, starting with Schauer's touch pad would have looked to Nishikawa to incorporate Nishikawa's guidance device to achieve the predictable and desirable benefit of allowing the user to input data blindly, i.e., without requiring the user to actually see the touch pad [*Nishikawa, par. 7*]. Therefore, it would have been obvious to combine Schauer and Nishikawa to obtain the invention as specified in claim 1.

Referring to claim 2, Nishikawa further discloses that the predetermined track is a pattern composed of a first plurality of lengths and a second plurality of lengths, said first plurality of lengths including the lengths between each two adjacent points of a first plurality of points (P_i) sequentially arranged on a closed curve, and said second plurality of lengths is formed by a length starting from a point inside of said closed curve and ending at each of the second plurality of points (P_j) on said closed curve [*fig. 20. Note that claim 2 does not specifically define what*

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the first plurality of points are, but instead, merely requires that the first plurality of points are sequentially arranged on a closed curve. This is broadly construed to include any two arbitrary sequential points on a closed curve. Figure 20 of Nishikawa illustrates a closed curve defined by the entire surface of the touch pad. Within this surface, there are recessed portions and non-recessed portions. The non-recessed portions are interpreted as the predetermined track. The Examiner notes that this track is a pattern composed of first plurality of lengths including the lengths between each two adjacent points (e.g., the region in the upper right hand corner and the circular region located immediately to the left and below). Moreover, the track is also composed of a second plurality of lengths formed by a length starting from a point inside the closed surface (e.g., the circular region to the left of the center circular region 80) and ending at each of the second plurality of points on the closed curve (e.g., the six non-recessed portions touching the edge of the touch pad).].

Referring to claim 6, Nishikawa further discloses that the pattern formed by the first plurality of lengths and the second plurality of lengths is substantially axially symmetric [fig. 20].

Referring to claim 7, see the rejection of claim 6 above.

Referring to claim 8, Nishikawa further discloses that the closed curve is a rectangle or ellipse [fig. 20].

Referring to claim 9, Nishikawa further discloses switch elements (hashed circular regions) that are positioned on each of the first plurality of lengths and on at least one of the two lengths in the second plurality of lengths [fig. 20].

Referring to claim 10, Nishikawa further discloses that the guidance device comprises a visual guidance device including a visual guide track [figs. 15-20].

Referring to claim 11, Nishikawa further discloses that the guidance device comprises a recess having a switch element (hashed circular region) therein [fig. 20. *Note the circular region in the middle row, right-most column*].

Referring to claim 12, Nishikawa further discloses that the guidance device comprises a protrusion having one switch element thereon [fig. 18].

Referring to claim 13, Nishikawa explains that the cross-section of the recess can comprises a variety of different shapes [figs. 15-20]. However, Nishikawa does not explicitly disclose that one of those shapes is substantially trapezoidal. Nonetheless, at the time of the invention, it would have been obvious to a person of ordinary skill in the art to use a recess having a trapezoidal cross-section. Applicant has not disclosed that using a trapezoidal shape provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with trapezoidal shape or with the other shapes disclosed by Nishikawa because both shapes perform the same function--provides the user with tactile information. Therefore, it would have been obvious for one of ordinary skill in the art to modify Schauer and Nishikawa to obtain the invention specified in claim 13.

Referring to claim 14, Nishikawa further discloses that the cross-section of the recess is substantially semicircular [fig. 20].

Referring to claim 15, see the rejection of at least claim 13 above.

Referring to claim 16, see the rejection of at least claim 14 above.

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Referring to claims 17-19, Schauer and Nishikawa do not disclose that the switch element is a resistive

Referring to claim 20, Schauer further discloses that the input surface includes a touch sensitive screen [par. 13].

Referring to claim 21, Schauer further discloses a switch that comprises a keypad defined on the touch sensitive screen [fig. 1].

Referring to claim 22, Schauer further discloses that the input characters include numerals, letters, and characters defined by the user [figs. 2 and 3].

Referring to claim 23, Schauer further discloses that the hand-writing input device further includes a micro-processor unit and a memory, said micro-processor unit obtaining codes of characters corresponding to said switch signal combinations from a predetermined inquiry table stored in said memory [pars. 13-14].

Referring to claim 24, see the rejection of at least claim 23 above.

Referring to claims 25-29, Schauer and Nishikawa do not explicitly disclose that the hand-writing device further includes a serial, parallel, USB, infrared, or blue-tooth output interface. However, Official notice is taken that these types of output interfaces were exceedingly well known in the art. The Examiner notes that adding these well known output interfaces to Schauer and Nishikawa would have yielded equally well known and predictable results, namely providing output data from the hand-writing device. Therefore, it would have been obvious to modify Schauer and Nishikawa to include the output interfaces described above.

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Allowable Subject Matter

5. Claims 3-5 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles Kim whose telephone number is 571-272-7421. The examiner can normally be reached on Mon thru Thurs 8:30am to 6pm and alternating Fri 9:30am to 6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Samir Ahmed can be reached on 571-272-7413. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/CHARLES KIM/
Primary Patent Examiner
Art Unit 2624

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December 5, 2009